

WHAT IS CLAIMED IS:

1. (currently amended) An oscillating motor comprising:
  - a stator and a rotor mounted so as to be rotatable relative to one another, wherein the rotor is adapted to be fixedly mounted on a camshaft for effecting an adjustment of the camshaft relative to a crankshaft;
  - wherein the stator has an inner wall and radially inwardly extending stator vanes connected to the inner wall;
  - wherein the rotor has a base member and radially outwardly extending rotor vanes connected to the base member, wherein pressure chambers are delimited between sidewalls of the rotor vanes and sidewalls of the stator vanes, respectively;
  - wherein the rotor vanes each have an end face resting against the inner wall of the stator;
  - wherein the stator vanes have an end face, respectively, resting against a peripheral wall of the base member;
  - wherein between the end face of the rotor vanes and the inner wall of the stator a sealing gap is formed, respectively;
  - wherein the rotor vanes taper discontinuously from the end face of the rotor vanes, respectively, in a direction toward the base member so that the rotor vanes each have a widened section at the end face and a radially inwardly positioned section connecting the widened section to the base member, respectively;
  - wherein the widened section increases a gap length of the sealing gap so that a sealing action between the pressure chambers on opposite sides of the rotor vanes is optimized and leakage between pressure chambers on opposite sides of the rotor vanes is reduced;
  - wherein the sidewalls of the stator vanes diverge radially inwardly beginning at the inner wall of the stator and match a shape of the sidewalls of the rotor vanes;
  - wherein the sidewalls of the stator vanes each have ~~lateral surfaces~~ with a first recess at the end face, respectively, wherein the first recesses face the rotor vanes and cause a damping effect when the rotor vanes approach the stator vanes;
  - wherein the widened section has a width at the end face matching approximately 1.5 to 3 times a width of the radially inwardly positioned section;

wherein the radially inwardly positioned section of the rotor vanes has substantially a constant width across a length of the radially inwardly positioned section.

2. (canceled)

3. (original) The oscillating motor according to claim 1, wherein the widened section extends across at least one third of a radial length of the rotor vanes.

4. (original) The oscillating motor according to claim 1, wherein the widened section has lateral surfaces converging from the end face of the rotor vanes toward the base member.

5. (original) The oscillating motor according to claim 4, wherein the lateral surfaces of the widened sections are planar.

6. (previously presented) The oscillating motor according to claim 4, wherein the lateral surfaces of the widened sections are positioned at an obtuse angle relative to lateral surfaces of the radially inwardly positioned section of the rotor vanes.

7. (original) The oscillating motor according to claim 6, wherein the lateral surfaces of the radially inwardly positioned section are approximately parallel to one another.

8. (canceled)

9. (original) The oscillating motor according to claim 6, wherein the lateral surfaces of the widened section pass arc-shaped into the lateral surfaces of the radially inwardly positioned section.

10. (currently amended) ~~The An~~ oscillating motor ~~according to claim 6,~~  
~~further comprising:~~

a stator and a rotor mounted so as to be rotatable relative to one another,  
wherein the rotor is adapted to be fixedly mounted on a camshaft for effecting an  
adjustment of the camshaft relative to a crankshaft;

wherein the stator has an inner wall and radially inwardly extending stator  
vanes connected to the inner wall;

wherein the rotor has a base member and radially outwardly extending rotor  
vanes connected to the base member, wherein pressure chambers are delimited between  
sidewalls of the rotor vanes and sidewalls of the stator vanes, respectively;

wherein the rotor vanes each have an end face resting against the inner wall

of the stator;

wherein the stator vanes have an end face, respectively, resting against a peripheral wall of the base member;

wherein between the end face of the rotor vanes and the inner wall of the stator a sealing gap is formed, respectively;

wherein the rotor vanes taper discontinuously from the end face of the rotor vanes, respectively, in a direction toward the base member so that the rotor vanes each have a widened section at the end face and a radially inwardly positioned section connecting the widened section to the base member, respectively;

wherein the widened section increases a gap length of the sealing gap so that a sealing action between the pressure chambers on opposite sides of the rotor vanes is optimized and leakage between pressure chambers on opposite sides of the rotor vanes is reduced;

wherein the sidewalls of the stator vanes diverge radially inwardly beginning at the inner wall of the stator and match a shape of the sidewalls of the rotor vanes;

wherein the sidewalls of the stator vanes each have a first recess at the end face, respectively, wherein the first recesses face the rotor vanes and cause a damping effect when the rotor vanes approach the stator vanes;

wherein the widened section has a width at the end face matching approximately 1.5 to 3 times a width of the radially inwardly positioned section;

wherein the widened section has lateral surfaces converging from the end face of the rotor vanes toward the base member;

wherein the lateral surfaces of the widened sections are positioned at an obtuse angle relative to lateral surfaces of the radially inwardly positioned section of the rotor vanes;

recesses provided at a transition from the lateral surfaces of the radially inwardly positioned section into the lateral surfaces of the widened section.

11. (currently amended) The oscillating motor according to claim 10 [[1]], wherein the radially inwardly positioned section of the rotor vanes has substantially a constant width across a length of the radially inwardly positioned section.

12. (canceled)

13. (currently amended) The oscillating motor according to claim 1, wherein the stator has second recesses in a transition area from the sidewalls ~~lateral surfaces~~ of the stator vanes into the inner wall of the stator.

14. (original) The oscillating motor according to claim 13, wherein the widened sections of the rotor vanes, when the rotor vanes rest in a stop position against the stator vanes, engage the second recesses of the stator.

15. (currently amended) An oscillating motor comprising:  
a stator and a rotor mounted so as to be rotatable relative to one another, wherein the rotor is adapted to be fixedly mounted on a camshaft for effecting an adjustment of the camshaft relative to a crankshaft;

wherein the stator has an inner wall and radially inwardly extending stator vanes connected to the inner wall;

wherein the rotor has a base member and radially outwardly extending rotor vanes connected to the base member;

wherein the rotor vanes have an end face, respectively, resting against the inner wall of the stator;

wherein the stator vanes have an end face, respectively, resting against a peripheral wall of the base member;

wherein the rotor vanes each have a widened section at the end face, wherein the widened section extends across at least one third to approximately one half of a radial length of the rotor vanes, respectively;

wherein the rotor vanes each have a radially inwardly positioned section connecting the widened section to the base member, respectively;

wherein the radially inwardly positioned section has substantially a constant width across a length of the radially inwardly positioned section;

wherein the stator vanes have sidewalls that diverge radially inwardly beginning at the inner wall of the stator and match a shape of sidewalls of the rotor vanes;

wherein the sidewalls of the stator vanes each have ~~lateral surfaces with~~ a recess at the end face, respectively, wherein the recesses face the rotor vanes and cause a damping effect when the rotor vanes approach the stator vanes;

wherein the widened section has a width at the end face matching

approximately 1.5 to 3 times a width of the radially inwardly positioned section.

16. (currently amended) An oscillating motor comprising:

a stator and a rotor mounted so as to be rotatable relative to one another, wherein the rotor is adapted to be fixedly mounted on a camshaft for effecting an adjustment of the camshaft relative to a crankshaft;

wherein the stator has an inner wall and radially inwardly extending stator vanes connected to the inner wall;

wherein the rotor has a base member and radially outwardly extending rotor vanes connected to the base member;

wherein the rotor vanes have an end face, respectively, resting against the inner wall of the stator;

wherein the stator vanes have an end face, respectively, resting against a peripheral wall of the base member;

wherein the rotor vanes have sidewalls that taper discontinuously from the end face of the rotor vanes, respectively, in a direction toward the base member so that the rotor vanes each have a widened section at the end face and a radially inwardly positioned section, respectively;

wherein the radially inwardly positioned section of the rotor vanes has substantially a constant width across a length of the radially inwardly positioned section;

wherein the stator vanes have sidewalls that diverge radially inwardly beginning at the inner wall of the stator and match a shape of the sidewalls of the rotor vanes;

wherein the sidewalls of the stator vanes each have ~~lateral surfaces with~~ a recess at the end face, respectively, wherein the ~~first~~ recesses face the rotor vanes and cause a damping effect when the rotor vanes approach the stator vanes;

wherein the widened section has a width at the end face matching approximately 1.5 to 3 times a width of the radially inwardly positioned section.